

LUDOWICI TILES

A SERIES OF SPECIFICATIONS
AND DETAILS FOR ROOFING TILES, TILE SLABS,
CHIMNEY POTS AND FLOOR TILES

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Tiles

CHICAGO

104 SOUTH MICHIGAN AVENUE

NEW YORK

565 FIFTH AVENUE

ATLANTA

823 FORSYTH BUILDING

OKLAHOMA CITY

614 MERCANTILE BUILDING

WASHINGTON

738 FIFTEENTH STREET, N. W.

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Chimney Pots

CHICAGO, 104 South Michigan Avenue

NEW YORK, 565 Fifth Avenue

ATLANTA, 823 Forsyth Bld'g.

OKLAHOMA CITY, 614 Mercantile Bld'g.

WASHINGTON, 738 Fifteenth Street, N. W.

Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

CHIMNEY POTS

Chimney pots are made in various textures and colors especially adapted to use with our weathered effect tiles. They are also available in glazed colors for modernistic treatment.



C.P.200



C.P.500, 510 and 520



C.P.600, 610, 620, 630,
640, 650 and 660



C.P.400, 410 and 420



C.P.300, 310 and 320

SCHEDULE OF SIZES

NUMBER	FLUE	BASE	HEIGHT
C.P.200.....	7½"x7½"	13"x13"	15"
C.P.300.....	8" Dia.	14"	18"
C.P.310.....	12" Dia.	18"	21"
C.P.320.....	15" Dia.	21"	25"
C.P.400.....	8" Dia.	14½"	25"
C.P.410.....	12" Dia.	18½"	29"
C.P.420.....	15" Dia.	21"	32"
C.P.500.....	8" Dia.	14"	15"
C.P.510.....	12" Dia.	18"	18"
C.P.520.....	15" Dia.	21"	22"
C.P.600.....	10" Dia.	13"	15"
C.P.610.....	12" Dia.	15"	18"
C.P.620.....	15" Dia.	18"	20"
C.P.630.....	18" Dia.	21½"	23"
C.P.640.....	23" Dia.	26"	30"
*C.P.650.....	8"x12"	11"x15"	20"
*C.P.660.....	12"x17"	15"x20"	30"

*Elliptical

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Roofing Tiles

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ROOFING TILES

Produced since 1875.

Hard burned to afford enduring protection under the most severe weather conditions encountered.

Our nearest sales office will furnish samples or give information as to where displays or typical installations may be seen. Photographs of representative work on request.

Estimates promptly furnished from architect's plans and specifications.

Experienced service available for assistance in solving difficult roofing problems.

We are singularly well equipped to furnish tiles of quality. Our manufacture is carried on where the raw material is peculiarly adapted to the purpose; our plants are equipped with modern machinery; our research department develops methods for producing both modern and ancient effects at minimum cost. Large output and flexible production assure service on all operations.

Variety of product affords wide latitude in accomplishing pleasing roof effects.

Shingle tiles are produced in a variety of sizes, colors

and textures. Brittany Shingles may be so applied as faithfully to resemble ancient roofs of burned clay or stone, which are so interesting to the traveller in France and England. Crude Shingles are moulded duplicates of early original French tiles. Antique Shingles, more irregular, are ideal for the low rambling English design country house. Colonial Shingles, in texture and color, are remarkably like old split wood shingles. The Provincial Shingle, an inexpensive yet artistic pattern, is used in its dull-colored and weathered effects to subdue the roof, or in a range of brighter tones to give it accent. Yale Memorial tiles, as used on the Harkness Memorial Quadrangle at Yale University, on the New Duke University group, and other prominent buildings, especially lend themselves to the furthering of individual expression in a conservative manner.

Closed Shingle, English Shingle, French, Mission, Spanish, Roman and Greek tiles are offered in natural reds and fireflashed shades, or glazed in practically any color. They are also produced in various textures, including weathered surface effects.

SHOW ROOMS

CHICAGO
104 South Michigan Avenue

CINCINNATI
622 Broadway

NEW YORK
565 Fifth Avenue

BOSTON
E. Stanley Wires Company
120 South Boylston Street

WASHINGTON
738 Fifteenth Street, N.W.

PHILADELPHIA
1315 Walnut Street

ARCHITECTURAL EXHIBITS

INDIANAPOLIS
Architects Exhibit Building
DETROIT
Barlum Tower, Cadillac Square

ST. LOUIS
Arcade Building
CLEVELAND
Builders Exchange Building

NEW YORK
101 Park Avenue
BROOKLYN
Brooklyn Daily Eagle Building

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SHINGLE TILES

These patterns are available in a range of colors in a variety of surface textures

SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

Note: Words in italics enclosed within parentheses are selective to suit particular condition. Include or omit as required.

Note: Clauses are selective. Include or omit as they apply.



(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's (*specify pattern*) Shingle tiles and fittings of (*specify*) color.

(1b) (*Hips*) (*and*) (*valleys*) shall be cut at time of application.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap $2\frac{1}{2}$ " horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" up vertical walls) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide $\frac{3}{4}$ " x 1" cant strips at eaves and 1" stringers of necessary height under (*hip rolls and*) ridges.

(4b) Embed parallel with the pitch on 20" centers 1" x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install 1" x 2" strips spaced to suit tiles.

Note: Include (4b) if roof base is concrete.

(5) Flashings

(5a) At sides of vertical surfaces, insert base flashing between each course of tiles. Lap 3" and extend 4" under tiles and at least 6" up wall.

(5b) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5c) Masonry wall shall be cap flashed and pointed.

(5d) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5e) Extend gutter metal up roof to a point higher than outer edge of gutter.

(5f) **Open Valleys**—Line valleys with 16 oz. copper at least 20" wide. Turn edge over $\frac{1}{4}$ ". Lap joints at least 4". Fasten with cleats. Do not solder.

(5g) **Closed Valleys**—Flash between each course of tiles with 16" strips of same length as tiles.

(5h) **Rounded Valleys**—Flash between each course of tiles with curved strips of same length as tiles. Extend strips 8" beyond the curve at either side of valley.

(6) Laying

(6a) Lay tiles (*regular*) (*irregular*) with (*specify*) average exposure and not less than 2" head lap on the third course. Double tiles at eave. Fasten with ($1\frac{1}{2}$ " ($1\frac{3}{4}$ " (*specify*) copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

Note: Select whether regular or irregular and specify $1\frac{1}{2}$ " nails for $\frac{3}{8}$ " shingles; $1\frac{3}{4}$ " nails for $\frac{5}{8}$ " shingles; longer for thicker shingles.

(6b) Leave opening of 6" or more across valleys.

(6c) Cement end bands in laps.

(6d) Cement hip rolls in laps and fasten with 2" copper nails.

(6e) Cement ridges in laps and fasten with $2\frac{1}{2}$ " copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

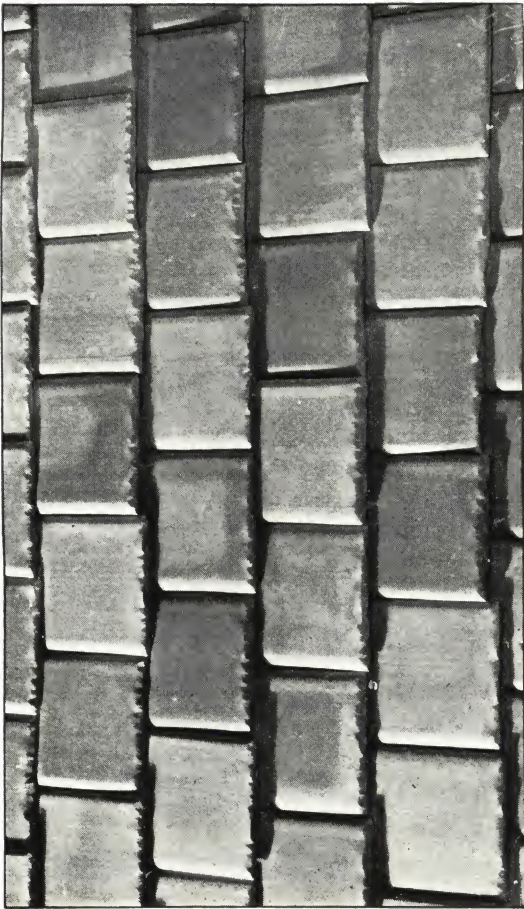
Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 30 lbs. of elastic cement per square.

Note: Include (6h) on high buildings.

Details concerning any roofing problem furnished on request.
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LUDOWICI SHINGLE TILES



PROVINCIAL	
Length.....	15 "
Width.....	7 "
Thickness.....	$\frac{1}{2}$ "
Average exposure.....	7" x $6\frac{1}{2}$ "
Average pieces per square.....	317
Average weight per square.....	1270 lbs.



BRITTANY	
Length.....	12 "
Width.....	7 "
Thickness.....	$\frac{5}{8}$ "
Average exposure.....	7" x 5 "
Average pieces per square.....	412
Average weight per square.....	1610 lbs.

LUDOWICI SHINGLE TILES



ANTIQUE	
Length.....	12 "
Width.....	7 "
Thickness.....	$\frac{9}{16}$ "
Average exposure.....	7" x 5"
Average pieces per square.....	412
Average weight per square.....	1490 lbs.

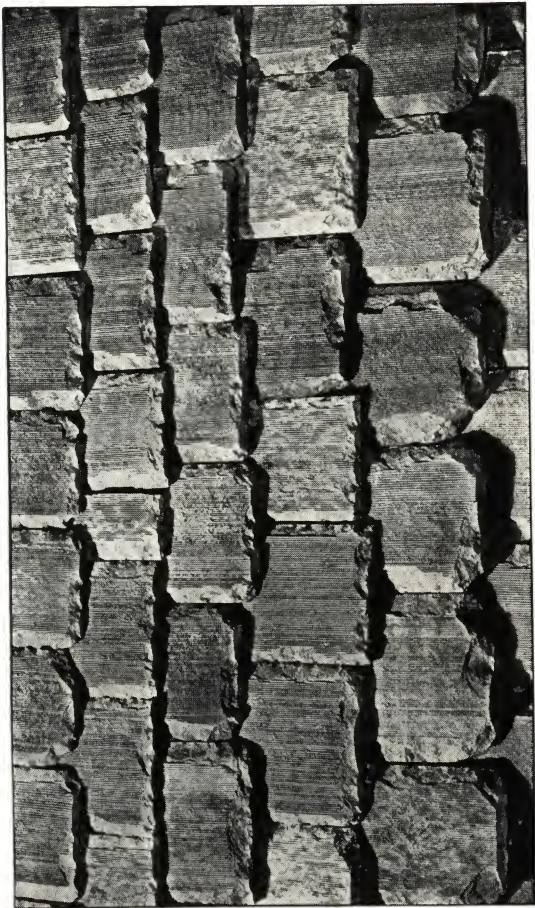


CRUDE	
Length.....	12 "
Width.....	$6\frac{1}{4}$ "
Thickness.....	$\frac{5}{8}$ "
Average exposure.....	$6\frac{1}{4}$ " x 5"
Average pieces per square.....	460
Average weight per square.....	1750 lbs.

LUDOWICI SHINGLE TILES



COLONIAL	
Length.....	15"
Width.....	7"
Thickness.....	$\frac{5}{8}$ "
Average exposure.....	7"x6 $\frac{1}{2}$ "
Average pieces per square.....	317
Average weight per square.....	1560 lbs.



YALE MEMORIAL	
Lengths.....	12", 14", 16"
Widths.....	6", 7", 8"
Thicknesses.....	$\frac{5}{8}$ ", $\frac{3}{4}$ ", 1"

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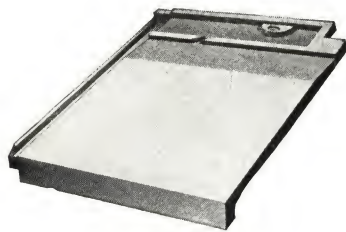
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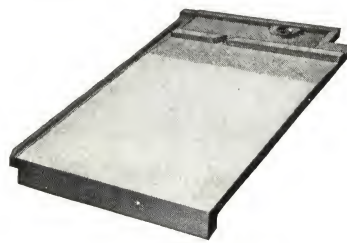
Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

INTERLOCKING SHINGLE TILES



CLOSED SHINGLE

These patterns are available in a range of colors in a variety of surface textures.



ENGLISH SHINGLE

SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

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Note: Clauses are selective. Include or omit as they apply.

(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's (*Closed*) (*English*) Shingle tiles and fittings of (*specify*) color.

(1b) (*Hips*) (*and*) (*valleys*) shall be cut before burning.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap $2\frac{1}{2}$ " horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" *up vertical walls*) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide $\frac{7}{8}$ " x 1" cant strips at eaves.

Note: Include (4a) if *English Shingles* are specified.

(4b) Provide 1" stringers of necessary height under (*hip rolls* *and*) ridges.

(4c) Embed parallel with the pitch on 20" centers 1" x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install 1" x 2" strips spaced to suit tiles.

Note: Include (4c) if roof base is concrete.

(5) Flashings

(5a) Line valleys with 16 oz. copper at least 20" wide. Turn edge over $\frac{1}{4}$ ". Lap joints at least 4". Fasten with cleats. Do not solder.

(5b) At sides of vertical surfaces, extend base flashing at least 6" up wall, 5" under tiles and turn up edge $\frac{1}{2}$ ".

(5c) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5d) Masonry wall shall be cap flashed and pointed.

(5e) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5f) Extend gutter metal up roof to a point higher than outer edge of gutter.

(6) Laying

(6a) Lay tiles to straight lines, parallel and at right angles to eaves, lapped 3". Fasten with 2" copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

(6b) Leave opening of 6" or more across valleys.

(6c) Cement gable rakes to field tiles and fasten with 2" copper nails.

(6d) Cement hip rolls in laps and fasten with 2" copper nails.

(6e) Cement ridges in laps and fasten with $2\frac{1}{2}$ " copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 30 lbs. of elastic cement per square.

Note: Include (6h) on high buildings.

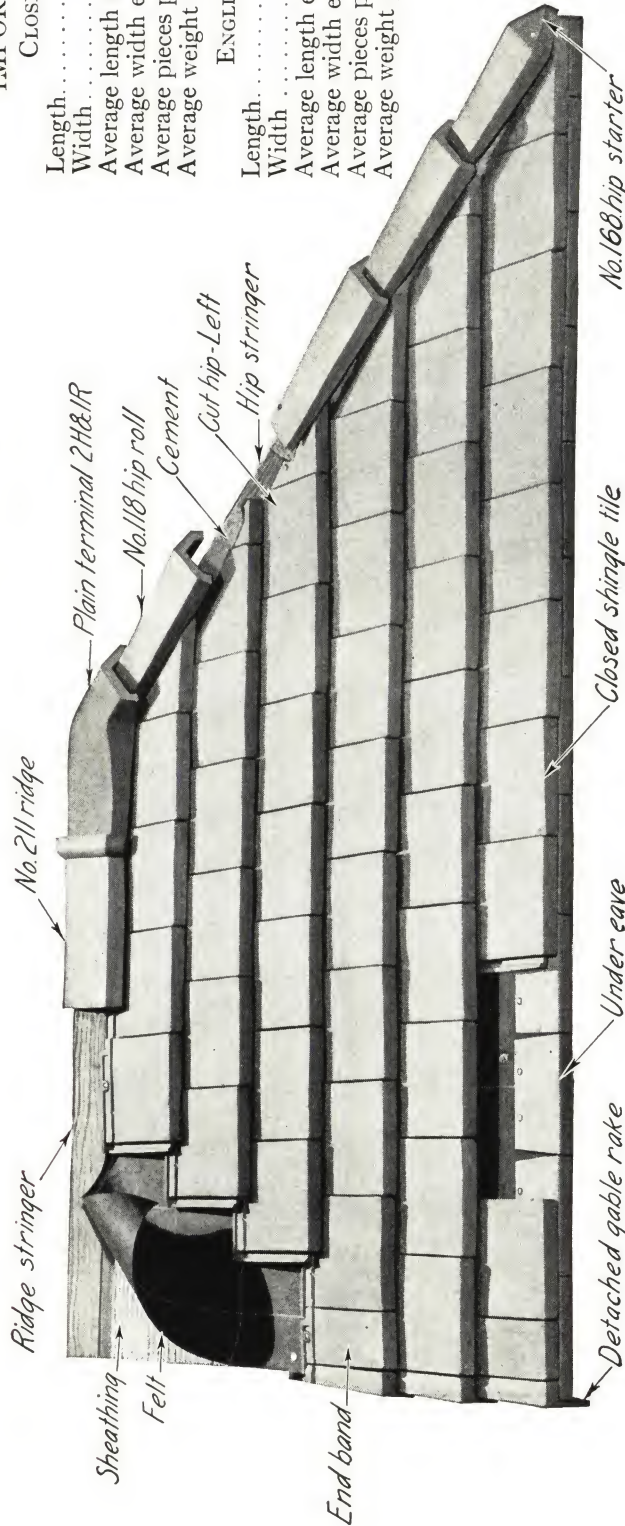
Details concerning any roofing problem furnished on request.
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DETAILS OF LUDOWICI INTERLOCKING SHINGLE TILES

IMPORTANT DATA

CLOSED SHINGLE	
Length.....	11"
Width.....	8 3/4"
Average length exposure.....	8"
Average width exposure.....	8"
Average pieces per square.....	225
Average weight per square.....	800 lbs.

ENGLISH SHINGLE	
Length.....	13 1/4"
Width.....	8 3/4"
Average length exposure.....	10 1/8"
Average width exposure.....	7 3/4"
Average pieces per square.....	182
Average weight per square.....	900 lbs.



HIP AND RIDGE STRINGER HEIGHTS

Roof Pitch	CLOSED SHINGLE		ENGLISH SHINGLE	
	Hip No. 118	Ridge No. 211	Hip No. 120	Ridge No. 211
4" Rise to 12" Run.....	2 7/8"	3 1/8"	3 1/4"	3"
5" Rise to 12" Run.....	2 3/4"	2 7/8"	3 1/4"	2 3/4"
6" Rise to 12" Run.....	2 3/8"	2 5/8"	3 1/4"	2 1/4"
7" Rise to 12" Run.....	2 3/4"	2 3/8"	3 1/4"	2 1/4"
8" Rise to 12" Run.....	2 3/4"	2 3/8"	3 1/4"	2"
9" Rise to 12" Run.....	2 3/4"	2 1/8"	3"	1 3/4"
10" Rise to 12" Run.....	2 5/8"	1 5/8"	3"	1 1/2"
11" Rise to 12" Run.....	2 5/8"	1 1/8"	3"	1 1/8"
12" Rise to 12" Run.....	2 5/8"	1 1/8"	3"	1"
13" Rise to 12" Run.....	2 5/8"	1 1/8"	2 7/8"	7/8"
14" Rise to 12" Run.....	2 5/8"	1 1/8"	2 5/8"	3/4"

CORRECT RAFTER LENGTHS FOR FULL LENGTH TILES

Based on 2" projection at eave of roof.

COURSE	CLOSED SHINGLE	ENGLISH SHINGLE
1.....	9"	11 1/4"
2.....	17"	21 3/4"
3.....	25"	31 1/2"
4.....	33"	41 5/8"
5.....	41"	51 3/4"
6.....	49"	61 7/8"
7.....	57"	72"
8.....	65"	82 1/4"
9.....	73"	92 1/4"
10.....	81"	102 3/8"
11.....	89"	112 3/4"

LUDOWICI-CELADON COMPANY

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FRENCH TILES

This pattern is available in a range of colors

SPECIFICATIONS

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Note: Clauses are selective. Include or omit as they apply.



(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's French tiles and fittings of (*specify*) color.

(1b) (*Hips*) (*and*) (*valleys*) shall be cut before burning.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap $2\frac{1}{2}$ " horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" *up vertical walls*) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide $1\frac{1}{2}$ "x2" cant strips at eaves and 1" stringers of necessary height under (*hip rolls and*) ridges.

(4b) Embed parallel with the pitch on 20" centers $1\frac{1}{2}$ " x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install $1\frac{1}{2}$ " x 2" strips spaced to suit tiles.

Note: Include (4b) if roof base is concrete.

(5) Flashings

(5a) Line valleys with 16 oz. copper at least 20" wide. Turn edge over $\frac{1}{4}$ ". Lap joints at least 4". Fasten with cleats. Do not solder.

(5b) At sides of vertical surfaces, extend base flashing at least 6" up wall, 5" under tiles and turn up edge $\frac{1}{2}$ ".

(5c) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5d) Masonry wall shall be cap flashed and pointed.

(5e) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5f) Extend gutter metal up roof to a point higher than outer edge of gutter.

(6) Laying

(6a) Lay tiles to straight lines, parallel and at right angles to eaves, lapped 3". Fasten with $2\frac{1}{2}$ " copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

(6b) Leave opening of 6" or more across valleys.

(6c) Cement gable rakes to field tiles and fasten with 2" copper nails.

(6d) Cement hip rolls in laps and fasten with 2" copper nails.

(6e) Cement ridges in laps and fasten with $2\frac{1}{2}$ " copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 40 lbs. of elastic cement per square.

(6i) Copper clamp shall be placed in side lock of each tile at point directly above head of tile below. Nail clamp to roof base.

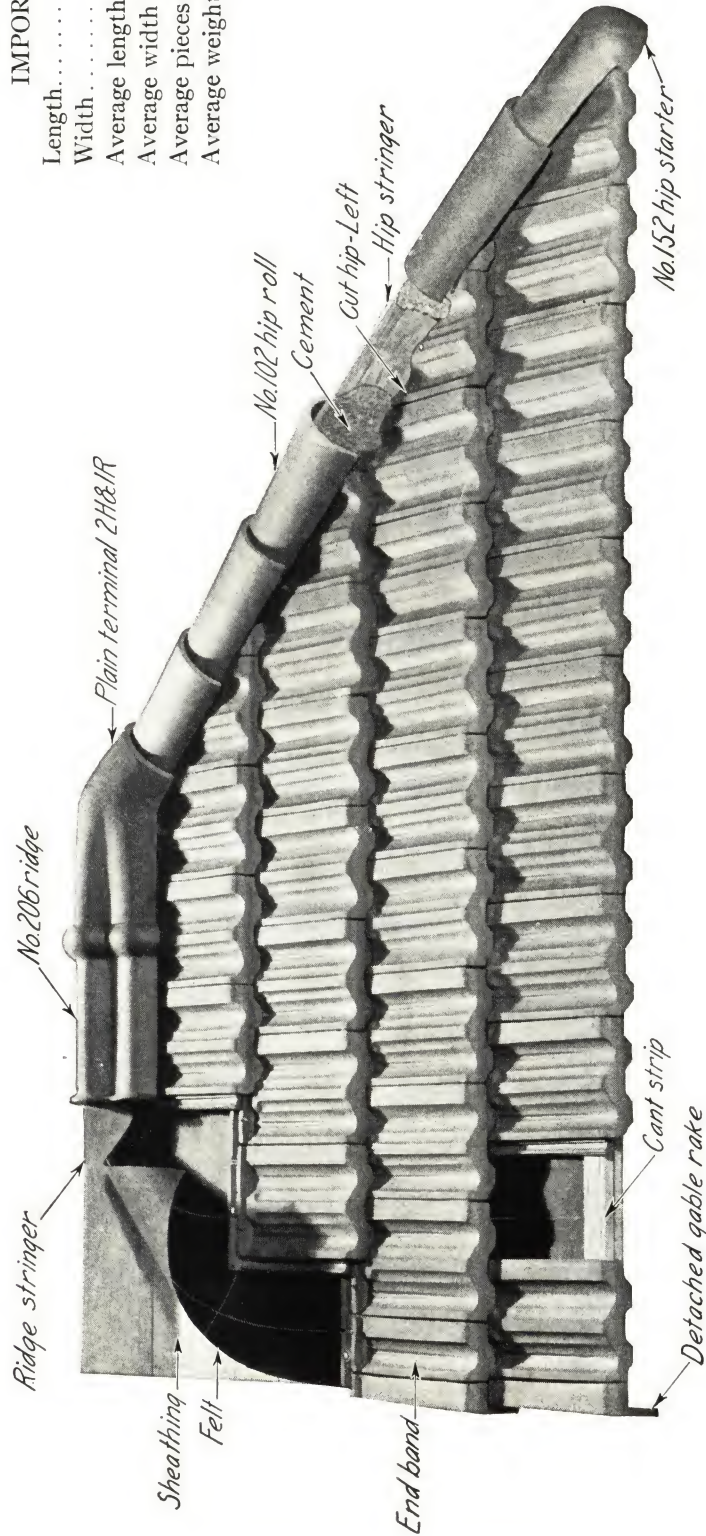
Note: Include either (6h) or (6i) on high buildings.

Details concerning any roofing problem furnished on request.
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DETAILS OF LUDOWICI FRENCH TILES

IMPORTANT DATA

Length.....	16 $\frac{1}{4}$ "
Width.....	9"
Average length exposure.....	13 $\frac{3}{8}$ "
Average width exposure.....	8 $\frac{1}{8}$ "
Average pieces per square...	133
Average weight per square...	840 lbs.



CORRECT RAFTER LENGTHS FOR FULL LENGTH TILES

Based on 2" projection at eave of roof.

COURSE	RAFTER
1.....	14"
2.....	27 $\frac{3}{8}$ "
3.....	40 $\frac{3}{4}$ "
4.....	54 $\frac{1}{2}$ "
5.....	67 $\frac{1}{2}$ "
6.....	80 $\frac{7}{8}$ "
7.....	94 $\frac{1}{4}$ "
8.....	107 $\frac{5}{8}$ "
9.....	121"
10.....	134 $\frac{3}{8}$ "

HIP AND RIDGE STRINGER HEIGHTS

ROOF PITCH	HIP NO. 102	RIDGE NO. 206
4" Rise to 12" Run.....	4 $\frac{3}{8}$ "	5 $\frac{1}{4}$ "
5" Rise to 12" Run.....	4 $\frac{5}{8}$ "	5"
6" Rise to 12" Run.....	4 $\frac{7}{8}$ "	4 $\frac{3}{4}$ "
7" Rise to 12" Run.....	4 $\frac{7}{8}$ "	4 $\frac{3}{4}$ "
8" Rise to 12" Run.....	4 $\frac{1}{2}$ "	4 $\frac{1}{4}$ "
9" Rise to 12" Run.....	4 $\frac{3}{8}$ "	4"
10" Rise to 12" Run.....	4 $\frac{3}{8}$ "	3 $\frac{3}{4}$ "
11" Rise to 12" Run.....	4 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "
12" Rise to 12" Run.....	4 $\frac{1}{4}$ "	3 $\frac{1}{4}$ "
13" Rise to 12" Run.....	4"	3"
14" Rise to 12" Run.....	4 $\frac{1}{8}$ "	2 $\frac{7}{8}$ "
15" Rise to 12" Run.....	4 $\frac{1}{8}$ "	2 $\frac{7}{8}$ "

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MISSION TILES

These patterns are available in a range of colors in a variety of surface textures

SPECIFICATIONS

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Note: Clauses are selective. Include or omit as they apply.



(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's (*specify pattern*) Mission Tiles and fittings of (*specify*) color.

(1b) Covers shall be used as (*hip roll and*) ridge.

(1c) (*Hips shall be cut*) (*and*) valleys shall be cut and closed before burning.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap $2\frac{1}{2}$ " horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" up vertical walls) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide 1" strips of necessary height under covers (*hip rolls*) and ridges.

(4b) Embed parallel with the pitch on 20" centers 1" x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install 1" x 2" strips spaced to suit pan tiles.

Note: Include (4b) if roof base is concrete.

(5) Flashings

(5a) Line valleys with 16 oz. copper at least 20" wide. Turn edge over $\frac{1}{4}$ ". Lap joints at least 4". Fasten with cleats. Do not solder.

(5b) At sides of vertical surfaces, extend base flashing at least 6" up wall, 4" under tiles and turn up edge 2".

(5c) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5d) Masonry wall shall be cap flashed and pointed.

(5e) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5f) Extend gutter metal up roof to a point higher than outer edge of gutter.

(6) Laying

(6a) Lay tiles (*regular*) (*irregular*) exposure with not less than 3" lap. Fasten with 2" copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

(6b) **Irregular Effect**—Lay pans at actual exposure. Vary exposures of covers to avoid horizontal and diagonal lines using 10% additional covers.

(6c) Leave opening of 6" or more across valleys.

(6d) Cement gable rakes to field tiles and fasten with $2\frac{1}{2}$ " copper nails.

(6e) Cement (*hip rolls*) (*and*) (*ridges*) in laps and fasten with $2\frac{1}{2}$ " copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

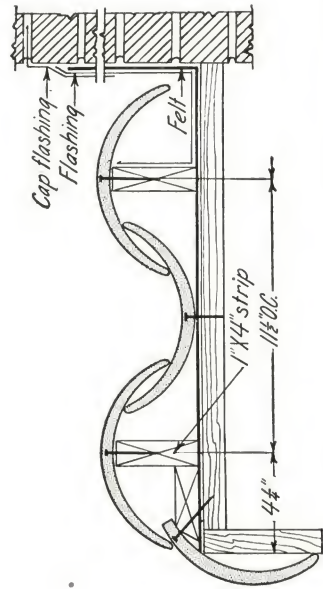
Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 30 lbs. of elastic cement per square.

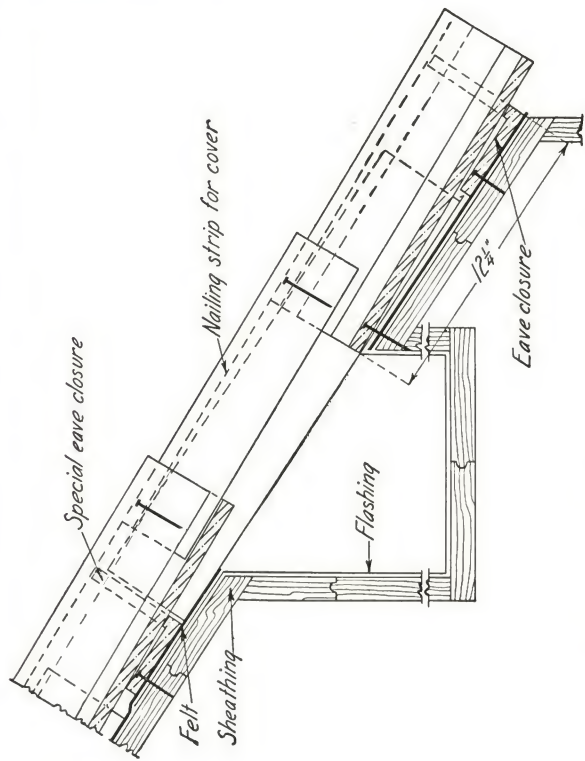
Note: Include (6h) on high buildings.

Details concerning any roofing problem furnished on request.
If additional copies of this catalogue are desired, please write.

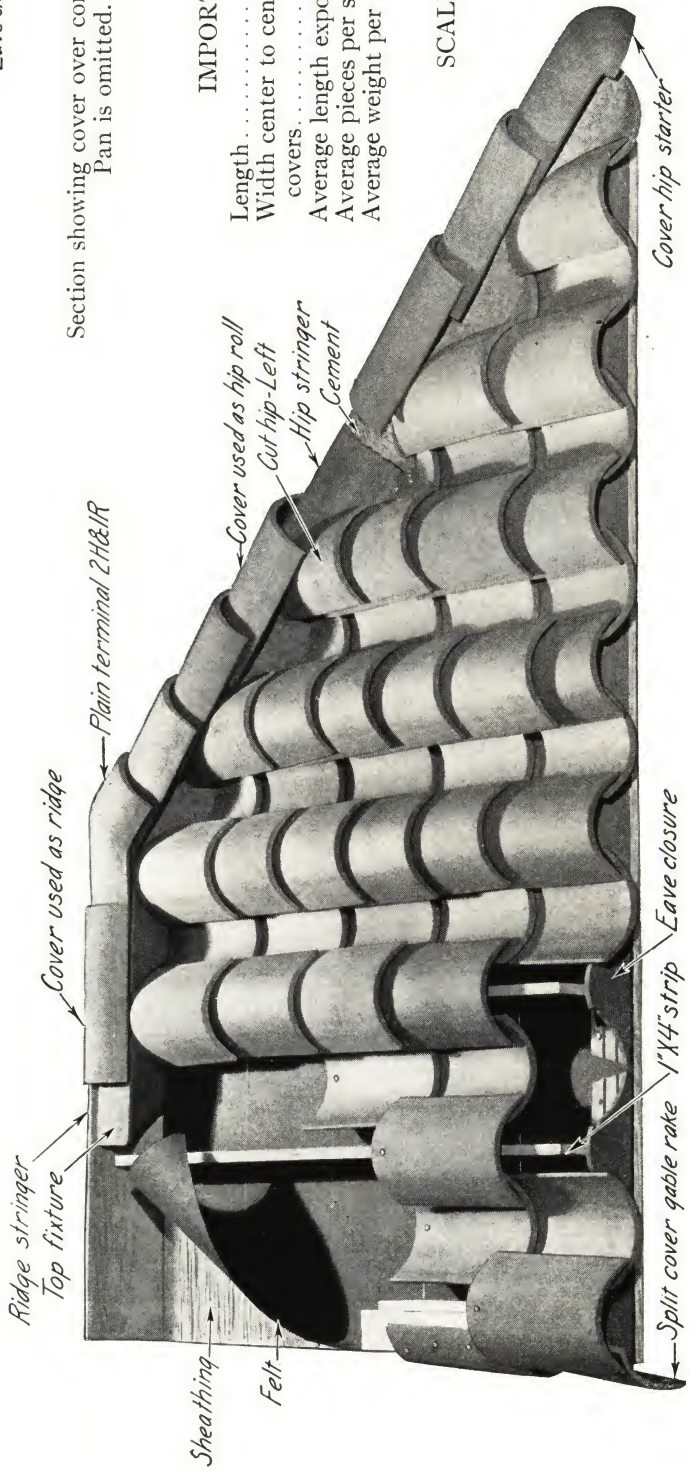
DETAILS OF LUDOWICI
STRAIGHT BARREL MISSION TILES AND FITTINGS



Section showing split cover gable rake, also flashing under side of tiles.



Section showing cover over concealed gutter.
Pan is omitted.

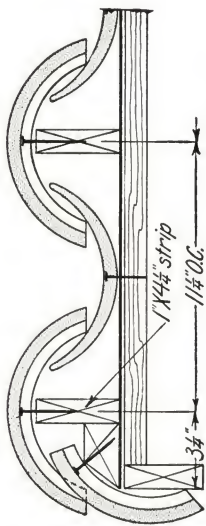


IMPORTANT DATA

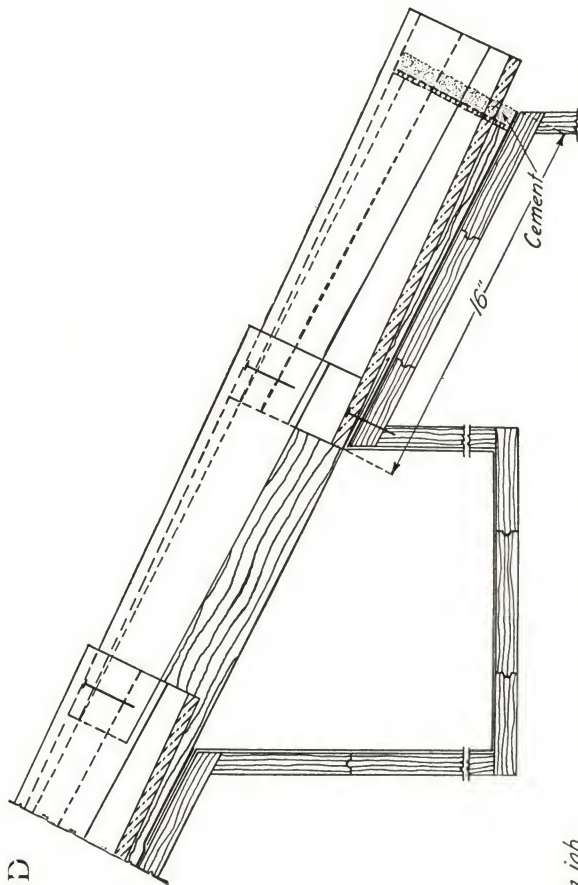
Length.....	14 1/4".....	18"
Width center to center of covers.....	11 1/2".....	11 1/2"
Average length exposure...	11 1/4".....	15"
Average pieces per square...	224.....	170
Average weight per square.	1200 lbs.	1200 lbs.

SCALE 1 1/2" = 1'-0"

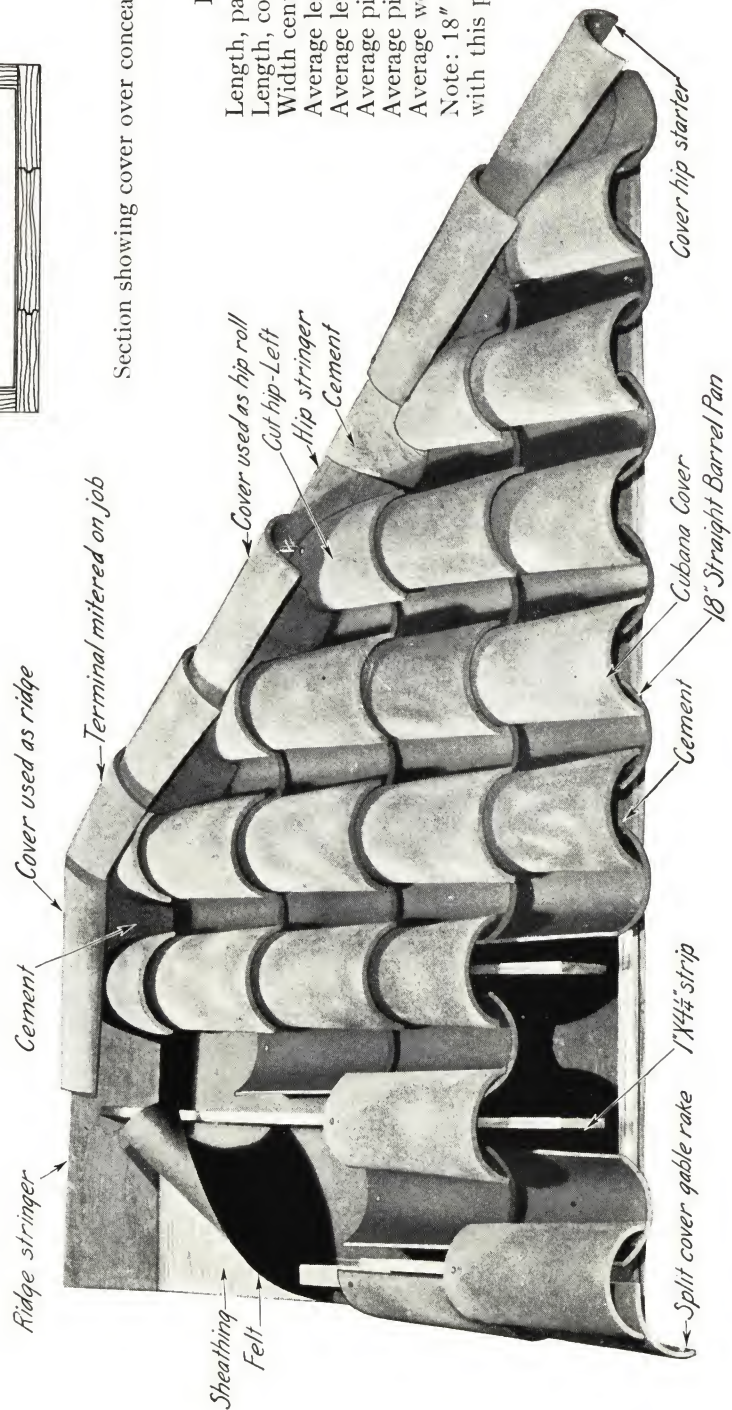
DETAILS OF LUDOWICI 18" CUBANA TAPERED MISSION TILES AND FITTINGS



Section showing split cover gable rake.



Section showing cover over concealed gutter. Pan is omitted.



IMPORTANT DATA

Length, pan	18 "
Length, cover	18 "
Width, center to center of covers ..	11 1/4 "
Average length exposure, pans ..	15 "
Average length exposure, covers ..	15 "
Average pieces per square, pans ..	85
Average pieces per square, covers ..	85
Average weight per square	1280 lbs.

Note: 18" Straight Barrel pans furnished with this pattern.

SCALE 1 1/2" = 1'-0"

DETAILS OF LUDOWICI LARGE TAPERED
MISSION TILES AND FITTINGS

IMPORTANT DATA

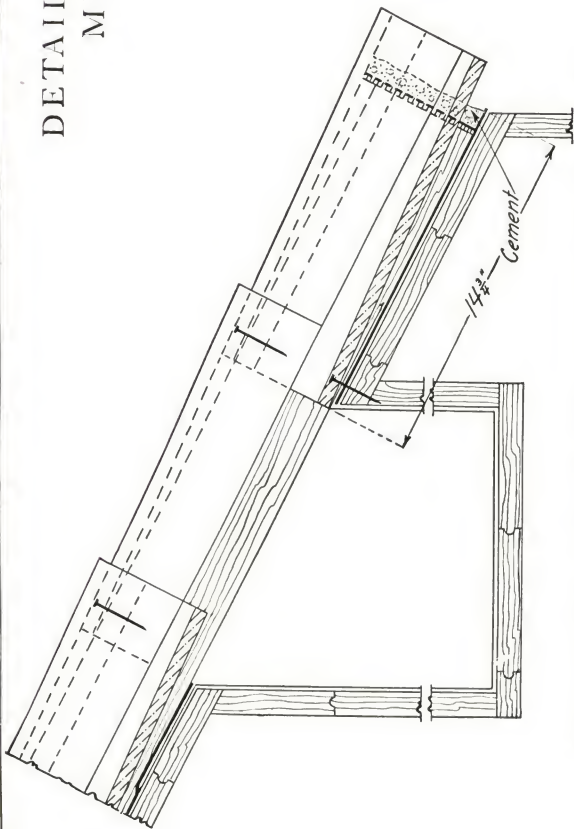
LARGE TAPERED PANS AND COVERS

Length.....	16 $\frac{3}{4}$ "
Width center to center of covers.....	10 $\frac{1}{2}$ "
Average length exposure.....	13 $\frac{3}{4}$ "
Average pieces per square.....	200
Average weight per square.....	1450 lbs.

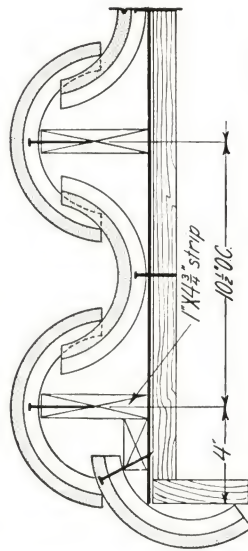
LARGE TAPERED COVERS AND 18" STRAIGHT BARREL PANS

Length, pan.....	18"
Length, cover.....	16 $\frac{3}{4}$ "
Width center to center of covers.....	11"
Average length exposure, pans.....	15"
Average length exposure, covers.....	13 $\frac{3}{4}$ "
Average pieces per square, pans.....	87
Average pieces per square, covers.....	95
Average weight per square.....	1300 lbs.

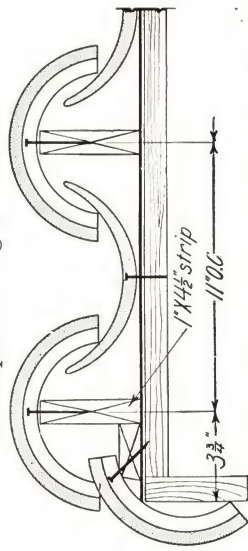
SCALE 1 $\frac{1}{2}$ " = 1'-0"



Section showing cover over concealed gutter. Pan is omitted.
NOTE: When 18" Straight Barrel pans are used, distance below gutter should be 16".



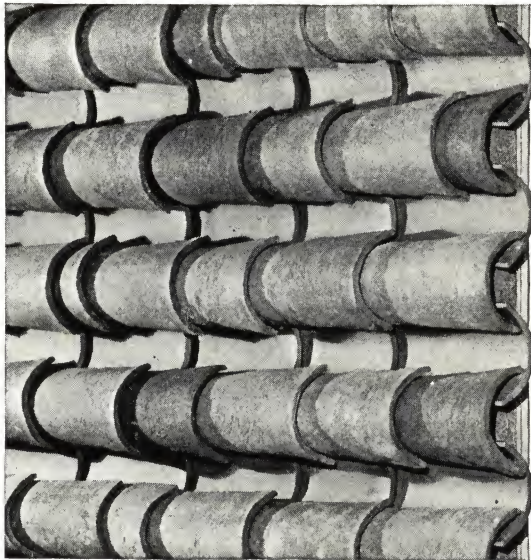
Section showing Large Tapered pans and covers,
also split cover gable rake.



Section showing Large Tapered covers with 18"
Straight Barrel pans, also split cover gable rake.



Large Tapered pans and covers.



Large Tapered covers and Straight Barrel pans.

DETAILS OF LUDOWICI SMALL TAPERED MISSION TILES AND FITTINGS

IMPORTANT DATA

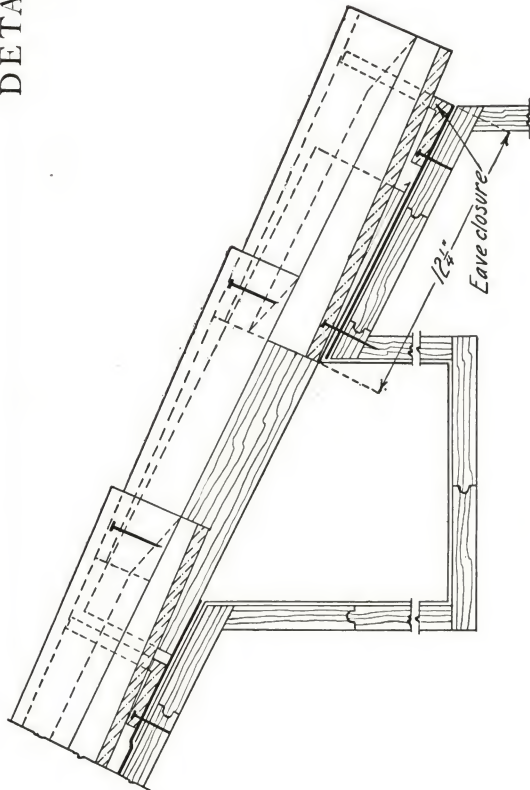
SMALL TAPERED PANS AND COVERS

Length	14 $\frac{1}{4}$ "
Width center to center of covers	9 $\frac{1}{2}$ "
Average length exposure	11 $\frac{1}{4}$ "
Average pieces per square	270
Average weight per square	1330 lbs.

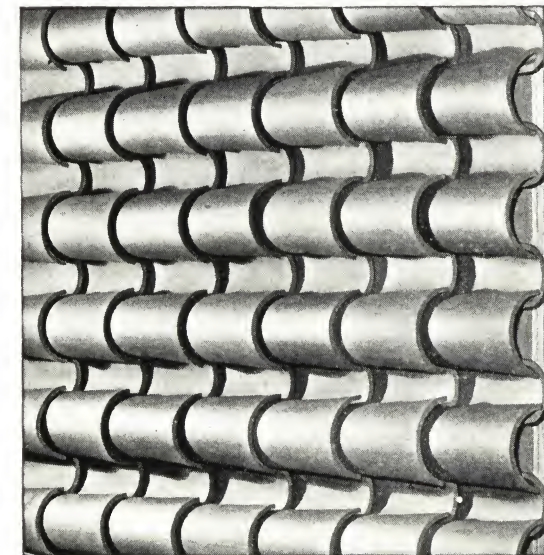
SMALL TAPERED COVERS AND 14 $\frac{1}{4}$ " STRAIGHT BARREL PANS

Length, pan	14 $\frac{1}{4}$ "
Length, cover	14 $\frac{1}{4}$ "
Width center to center of covers	10"
Average length exposure, pans	11 $\frac{1}{4}$ "
Average length exposure, covers	11 $\frac{1}{4}$ "
Average pieces per square, pans	128
Average pieces per square, covers	128
Average weight per square	1310 lbs.

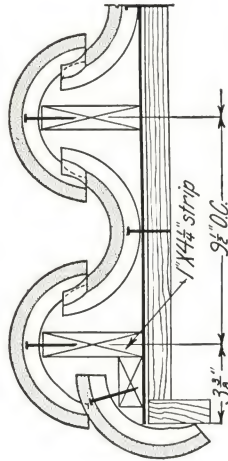
SCALE 1 $\frac{1}{2}$ " = 1'-0"



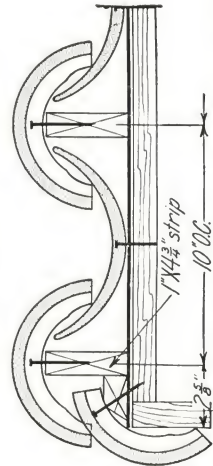
Section showing cover over concealed gutter. Pan is omitted.



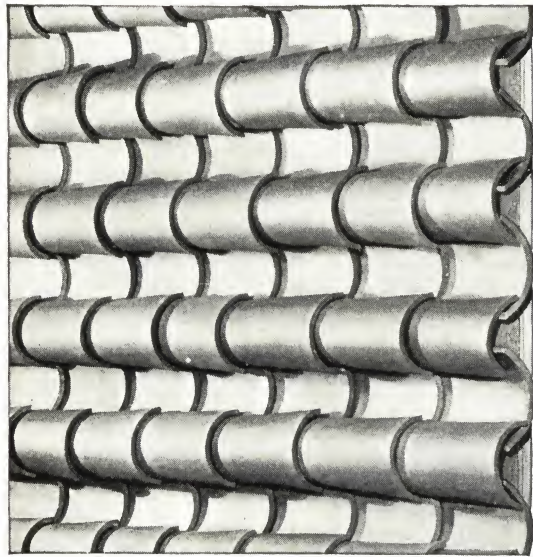
Small Tapered pans and covers.



Section showing Small Tapered pans and covers, also split cover gable rake.



Section showing Small Tapered covers with 14 $\frac{1}{4}$ " Straight Barrel pans, also split cover gable rake.



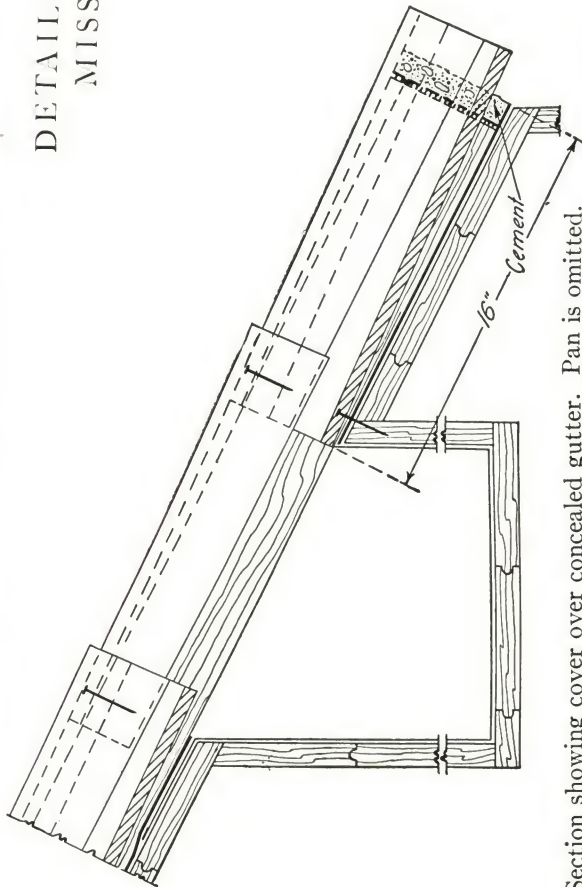
Small Tapered covers and Straight Barrel pans.

DETAILS OF LUDOWICI 18" TAPERED MISSION TILES AND FITTINGS

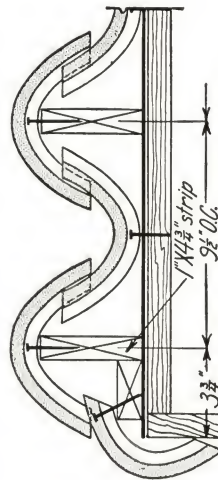
IMPORTANT DATA

18" TAPERED PANS AND COVERS	
Length.....	18 "
Width center to center of covers.....	9½ "
Average length exposure.....	15 "
Average pieces per square.....	204
Average weight per square.....	1410 lbs.
18" TAPERED COVERS AND 18" STRAIGHT BARREL PANS	
Length, pan.....	18 "
Length, cover.....	18 "
Width center to center of covers.....	10 "
Average length exposure, pans.....	15 "
Average length exposure, covers.....	15 "
Average pieces per square, pans.....	96
Average pieces per square, covers.....	96
Average weight per square.....	1340 lbs.

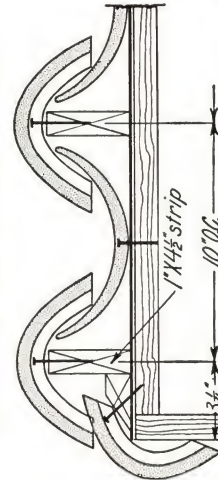
SCALE 1½" = 1'-0"



Section showing cover over concealed gutter. Pan is omitted.
NOTE: When 18" Straight Barrel pans are used distance below gutter should be 16".



Section showing 18" Tapered pans and covers, also split cover gable rake.



Section showing 18" Tapered covers and 18" Straight Barrel pans, also split cover gable rake.



18" Tapered pans and covers.



18" Tapered covers and Straight Barrel pans.

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Roofing Tiles

CHICAGO, 104 South Michigan Avenue

NEW YORK, 565 Fifth Avenue

ATLANTA, 823 Forsyth Bld'g.

OKLAHOMA CITY, 614 Mercantile Bld'g.

WASHINGTON, 738 Fifteenth Street, N. W.

Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

SPANISH TILES

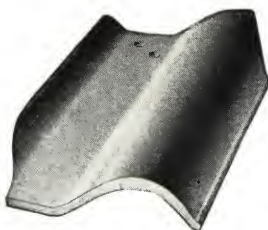
This pattern is available in a range of colors in a variety of surface textures

SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

Note: Words in italics enclosed within parentheses are selective to suit particular condition. Include or omit as required.

Note: Clauses are selective. Include or omit as they apply.



(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's Spanish tiles and fittings of (*specify*) color.

(1b) (*Hips shall be cut*) (*and*) valleys shall be cut and closed before burning.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap 2½" horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" *up vertical walls*) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide 1" x 2" strips under end bands and 1" stringers of necessary height under (*hip rolls and*) ridges.

(4b) Embed parallel with the pitch on 20" centers 1" x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install 1" x 2" strips spaced to suit tiles.

Note: Include (4b) if roof base is concrete.

(5) Flashings

(5a) Line valleys with 16 oz. copper at least 20" wide. Turn edge over ¼". Lap joints at least 4". Fasten with cleats. Do not solder.

(5b) At sides of vertical surfaces, extend base flashing at least 6" up wall, 4" under tiles and turn up edge 1½".

(5c) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5d) Masonry wall shall be cap flashed and pointed.

(5e) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5f) Extend gutter metal up roof to a point higher than outer edge of gutter.

(6) Laying

(6a) Lay tiles to straight lines, parallel and at right angles to eaves, lapped 3". Fasten with 1½" copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

(6b) Leave opening of 6" or more across valleys.

(6c) Cement gable rakes to field tiles and fasten with 2½" copper nails.

(6d) Cement hip rolls in laps and fasten with 2" copper nails.

(6e) Cement ridges in laps and fasten with 2½" copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

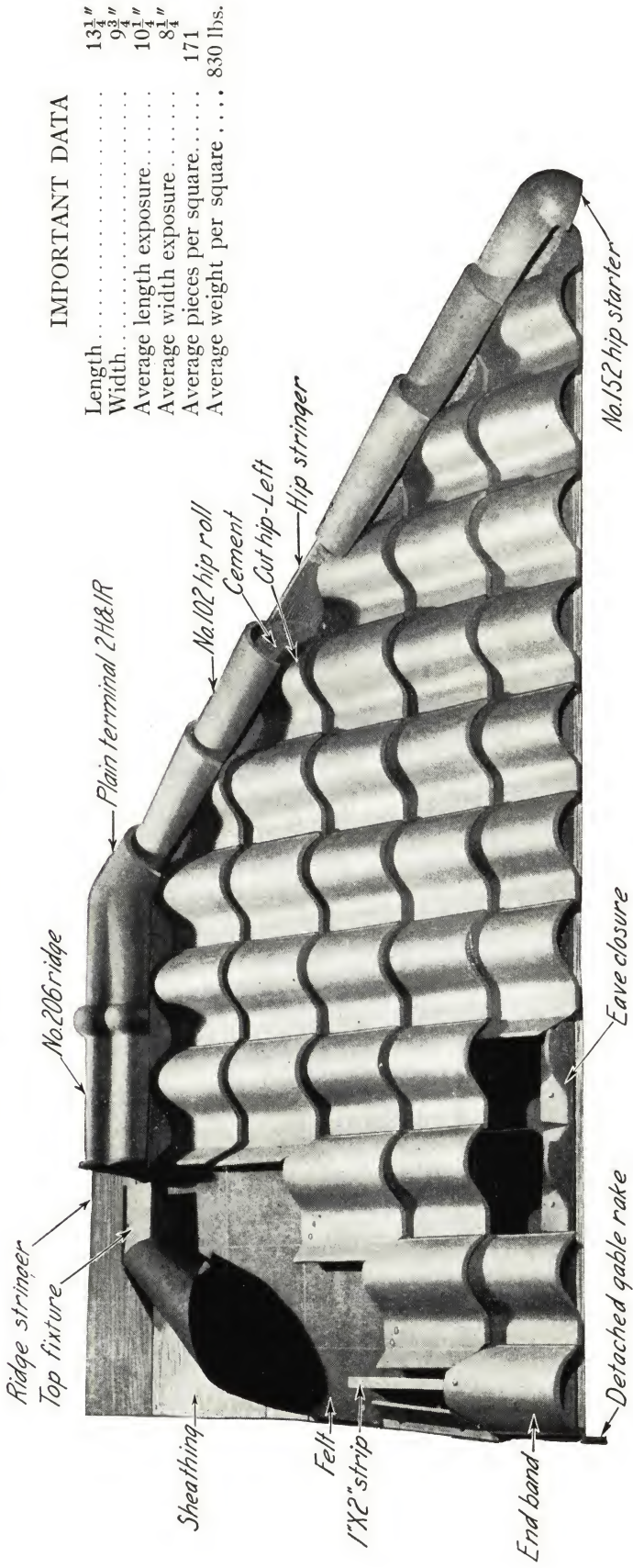
Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 30 lbs. of elastic cement per square.

Note: Include (6h) on high buildings.

*Details concerning any roofing problem furnished on request.
If additional copies of this catalogue are desired, please write.*

DETAILS OF LUDOWICI SPANISH TILES



CORRECT RAFTER LENGTHS FOR FULL LENGTH TILES

Based on 2" projection at eave of roof.

COURSE	RAFTER
1.....	11 1/4"
2.....	21 1/2"
3.....	31 3/4"
4.....	42"
5.....	52 1/4"
6.....	62 1/2"
7.....	72 3/4"
8.....	83"
9.....	93 1/4"
10.....	103 1/2"
11.....	113 3/4"

HIP AND RIDGE STRINGER HEIGHTS

ROOF PITCH	HIP NO. 102	RIDGE NO. 206
4" Rise to 12" Run.....	5"	6 1/2"
5" Rise to 12" Run.....	4 7/8"	6 1/4"
6" Rise to 12" Run.....	4 7/8"	6"
7" Rise to 12" Run.....	4 3/8"	5 3/4"
8" Rise to 12" Run.....	4 1/4"	5 1/2"
9" Rise to 12" Run.....	4 5/8"	5 3/8"
10" Rise to 12" Run.....	4 3/8"	5 1/4"
11" Rise to 12" Run.....	4 5/8"	5 1/8"
12" Rise to 12" Run.....	4 1/2"	5"
13" Rise to 12" Run.....	4 1/2"	4 7/8"
14" Rise to 12" Run.....	4 1/2"	4 3/4"
15" Rise to 12" Run.....	4 3/8"	4 1/2"

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Roofing Tiles

CHICAGO, 104 South Michigan Avenue

NEW YORK, 565 Fifth Avenue

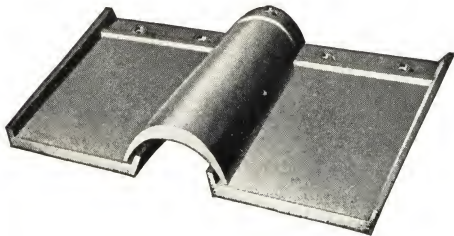
ATLANTA, 823 Forsyth Bld'g.

OKLAHOMA CITY, 614 Mercantile Bld'g.

WASHINGTON, 738 Fifteenth Street, N. W.

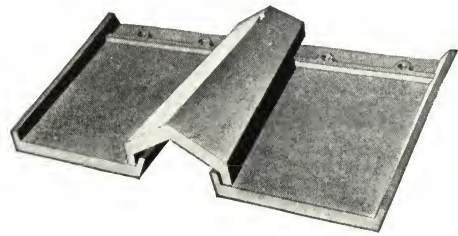
Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

ROMAN TILES



These patterns are available in a range of colors in a variety of surface textures.

GREEK TILES



SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

Note: Words in italics enclosed within parentheses are selective to suit particular condition. Include or omit as required.

Note: Clauses are selective. Include or omit as they apply.

(1) Tiles

(1a) Cover roofs so indicated with Ludowici-Celadon Company's (*Roman*) (*Greek*) tiles and fittings of (*specify*) color.

(1b) (*Hips shall be cut*) (*and*) valleys shall be cut and closed before burning.

(2) Nails

All nails for flashings and tiles shall be copper.

(3) Felt

(3a) Lay asphalt felt weighing 30 lbs. per square, doubled on (*low pitches*) (*rough surfaces*) (*hips*) (*valleys*) (*and*) ridges. Lay parallel to eaves. Lap $2\frac{1}{2}$ " horizontally and 6" vertically. Fasten with large-headed galvanized nails.

(3b) Extend felt (6" *up vertical walls*) (*and*) 4" over (*gutter*) (*and*) (*valley*) metal.

(4) Wood Strips

(4a) Provide 1" x $2\frac{3}{4}$ " strips under covers and 1" stringers of necessary height under (*hip rolls and*) ridges.

(4b) Embed parallel with the pitch on 20" centers 1" x 2" beveled wood strips flush with surface of concrete. Fasten felt with lath nailed over these strips. At right angles to embedded strips, over lath, install 1" x 2" strips spaced to suit pan tiles.

Note: Include (4b) if roof base is concrete.

(5) Flashings

(5a) Line valleys with 16 oz. copper at least 20" wide. Turn edge over $\frac{1}{4}$ ". Lap joints at least 4". Fasten with cleats. Do not solder.

(5b) At sides of vertical surfaces, extend base flashing at least 6" up wall, 4" under tiles and turn up edge 2".

(5c) At fronts, extend flashing at least 3" up wall and 4" over tiles.

(5d) Masonry wall shall be cap flashed and pointed.

(5e) Where tile and metal roofs intersect, extend metal up tile roof 12" or more.

(5f) Extend gutter metal up roof to a point higher than outer edge of gutter.

(6) Laying

(6a) Lay tiles to straight lines, parallel and at right angles to eaves, lapped 3". Fasten with $1\frac{1}{2}$ " copper nails. Fasten tiles overlapping sheet metal with copper wire and elastic cement.

(6b) Leave opening of 6" or more across valleys.

(6c) Cement gable rakes to field tiles and fasten with $2\frac{1}{2}$ " copper nails.

(6d) Cement hip rolls in laps and fasten with 2" copper nails.

(6e) Cement ridges in laps and fasten with $2\frac{1}{2}$ " copper nails.

(6f) Where tiles join hip stringers make waterproof with elastic cement.

(6g) Cement small pieces of graduated tiles solidly with elastic cement.

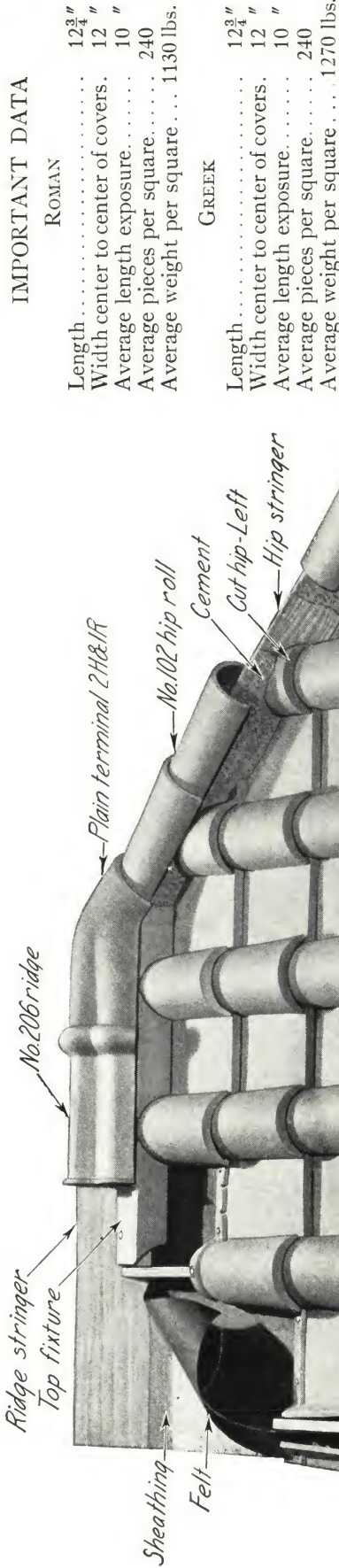
Note: Include (6g) on circular roofs.

(6h) Cement all tiles in laps, using 30 lbs. of elastic cement per square.

Note: Include (6h) on high buildings.

*Details concerning any roofing problem furnished on request.
If additional copies of this catalogue are desired, please write.*

DETAILS OF LUDOWICI ROMAN AND GREEK TILES



IMPORTANT DATA

ROMAN	
Length.....	12 ³ / ₄ "
Width center to center of covers.....	12 " "
Average length exposure.....	10 " "
Average pieces per square.....	240
Average weight per square.....	1130 lbs.
GREEK	
Length.....	12 ³ / ₄ "
Width center to center of covers.....	12 " "
Average length exposure.....	10 " "
Average pieces per square.....	240
Average weight per square.....	1270 lbs.

CORRECT RAFTER LENGTHS FOR FULL LENGTH ROMAN OR GREEK TILES

Based on 2" projection at eave of roof.

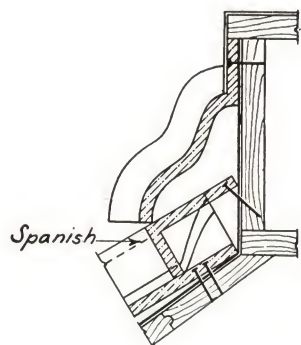
COURSE	RAFTER
1.....	10 ³ / ₄ "
2.....	20 ³ / ₄ "
3.....	30 ³ / ₄ "
4.....	40 ³ / ₄ "
5.....	50 ³ / ₄ "
6.....	60 ³ / ₄ "
7.....	70 ³ / ₄ "
8.....	80 ³ / ₄ "
9.....	90 ³ / ₄ "
10.....	100 ³ / ₄ "
11.....	110 ³ / ₄ "

HIP AND RIDGE STRINGER HEIGHTS

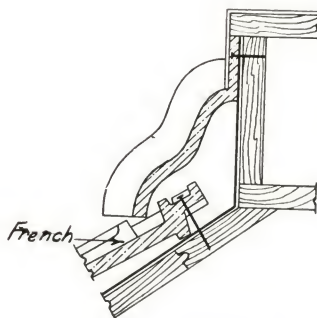
ROOF PITCH	ROMAN		GREEK	
	Hip No. 102	Ridge No. 206	Hip-Cover	Ridge No. 211
4" Rise to 12" Run.....	3 ³ / ₈ "	7 ¹ / ₄ "	7 " "	6 " "
5" Rise to 12" Run.....	6 ¹ / ₄ "	7 " "	7 " "	5 ³ / ₄ "
6" Rise to 12" Run.....	6 ¹ / ₄ "	6 ³ / ₄ "	7 " "	5 ¹ / ₄ "
7" Rise to 12" Run.....	6 ¹ / ₄ "	6 ¹ / ₄ "	6 ⁷ / ₈ "	5 ¹ / ₄ "
8" Rise to 12" Run.....	6 ¹ / ₄ "	6 ¹ / ₄ "	6 ⁷ / ₈ "	5 ¹ / ₄ "
9" Rise to 12" Run.....	6 ¹ / ₄ "	6 ¹ / ₄ "	6 ⁷ / ₈ "	5 " "
10" Rise to 12" Run.....	6 ¹ / ₄ "	6 " "	6 ⁷ / ₈ "	4 ⁷ / ₈ "
11" Rise to 12" Run.....	6 ¹ / ₄ "	5 ⁷ / ₈ "	6 ⁷ / ₈ "	4 ³ / ₄ "
12" Rise to 12" Run.....	6 " "	5 ³ / ₄ "	6 ³ / ₄ "	4 ³ / ₄ "
13" Rise to 12" Run.....	6 " "	5 ⁵ / ₈ "	6 ³ / ₄ "	4 ¹ / ₂ "
14" Rise to 12" Run.....	6 " "	5 ¹ / ₂ "	6 ³ / ₄ "	4 ³ / ₈ "

DETAILS OF LUDOWICI TILES AND FITTINGS

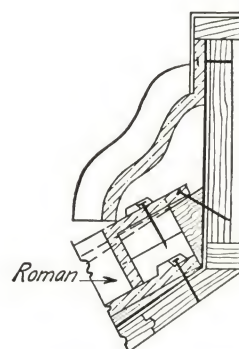
SCALE $1\frac{1}{2}" = 1'-0"$



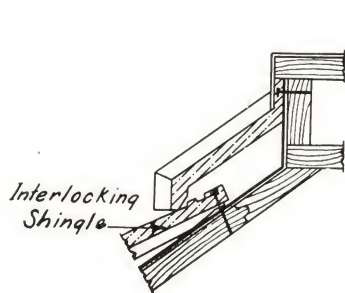
Deck section showing
No. 206 deck
mould-raised flange.



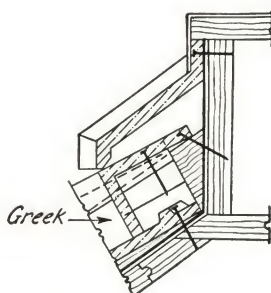
Deck section showing
No. 206 deck
mould-raised flange.



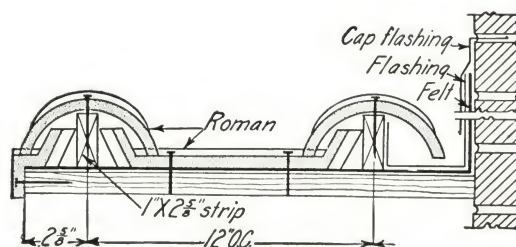
Deck section showing
No. 206 deck
mould-raised flange.



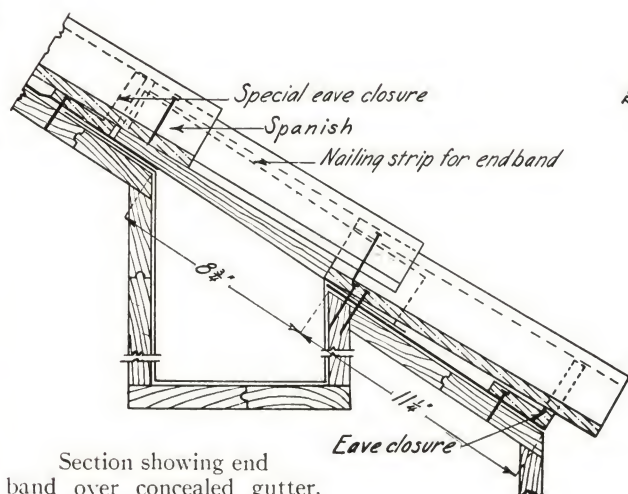
Deck section showing
No. 211 deck
mould-raised flange.



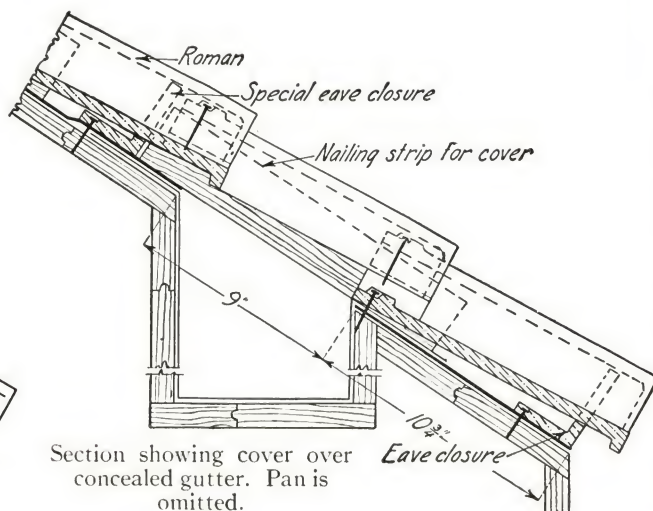
Deck section showing
No. 211 deck
mould-raised flange.



Section showing left gable rake, also
flashing under side of tiles.

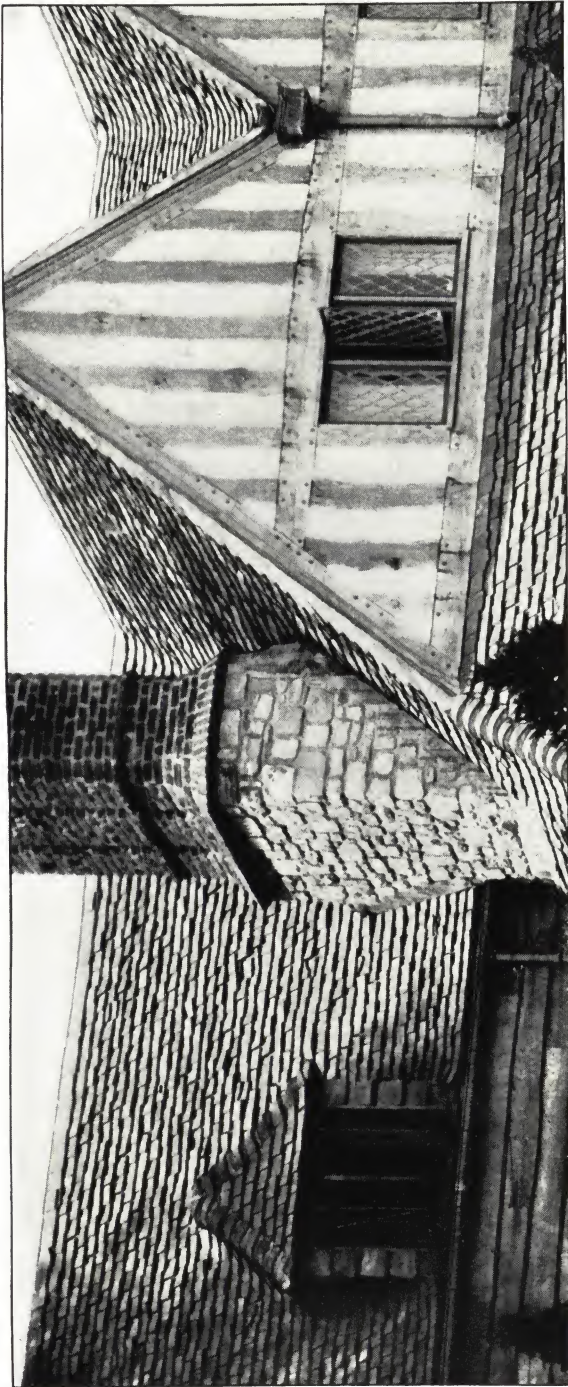


Section showing end
band over concealed gutter.



Section showing cover over
concealed gutter. Pan is
omitted.

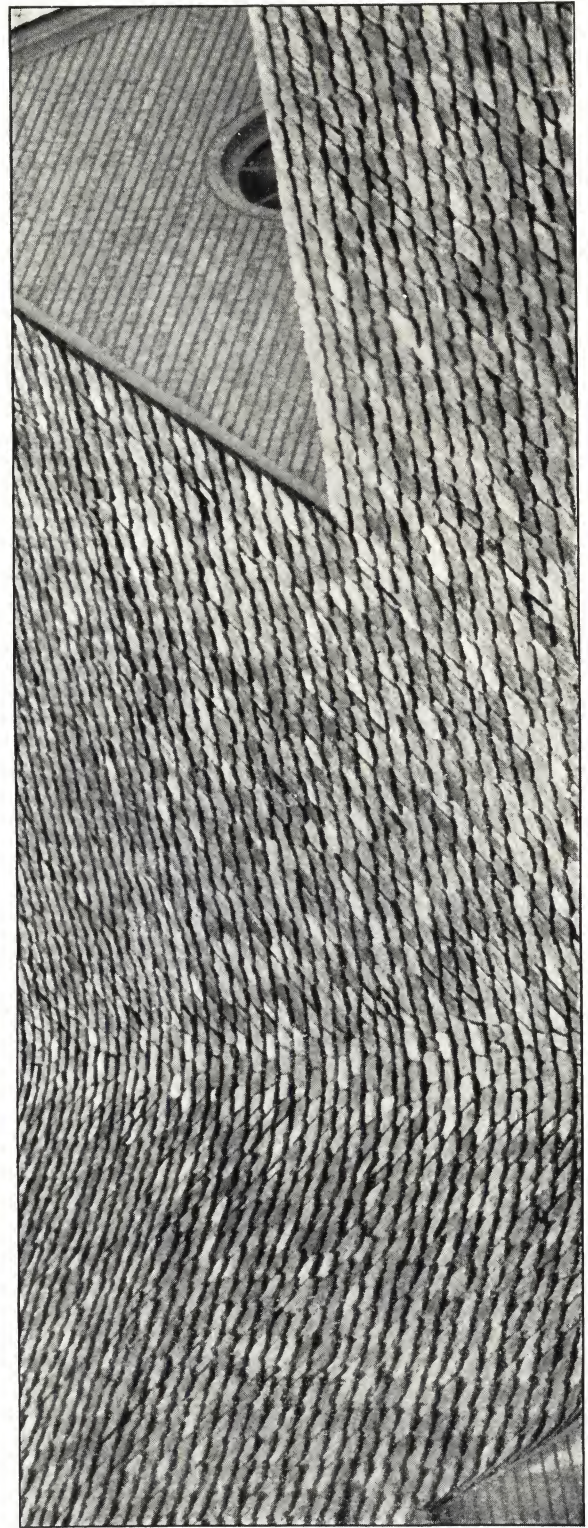
LUDOWICI SHINGLE TILES



Brittany Shingle Tiles



Mission cover ridge



Yale Memorial Tiles



Sprocket hip roll

LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Tile Slabs

CHICAGO, 104 South Michigan Avenue

NEW YORK, 565 Fifth Avenue

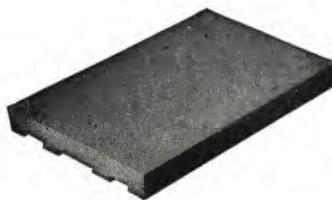
ATLANTA, 823 Forsyth Bld'g.

OKLAHOMA CITY, 614 Mercantile Bld'g.

WASHINGTON, 738 Fifteenth Street, N. W.

Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

TILE SLABS



In addition to red colors, tile slabs are manufactured in a range of browns and fire-flashed shades.

A complete line of tile slab fittings is available.

NUMBER OF PIECES PER SQUARE

Mortar Joint	6"x6"x1"	6"x9"x1"	9"x9"x1"
$\frac{1}{8}$ "	384	258	173
$\frac{1}{4}$ "	369	250	168
$\frac{3}{8}$ "	355	241	164
$\frac{1}{2}$ "	341	234	160



6"x9"x1"



6"x6"x1"



GARDEN WALK EDGING

Made in red, fire-flashed and black. Placed in the ground along walks or driveways it makes an interesting and practical edging for lawns or flower borders.

TILE FLAGGING SLABS

Made in a variety of colors. The texture suggests that of old stone flagging.

Size approximately 9"x12"x1 $\frac{1}{4}$ ".



LUDOWICI-CELADON COMPANY

Makers of LUDOWICI Floor Tiles

CHICAGO, 104 South Michigan Avenue

NEW YORK, 565 Fifth Avenue

ATLANTA, 823 Forsyth Bld'g.

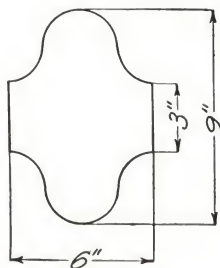
OKLAHOMA CITY, 614 Mercantile Bld'g.

WASHINGTON, 738 Fifteenth Street, N. W.

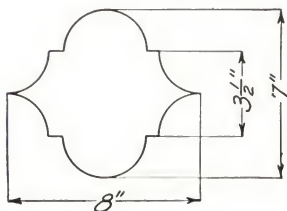
Factories located at NEW LEXINGTON, OHIO—COFFEYVILLE, KANSAS—PERU, KANSAS

FLOOR TILES

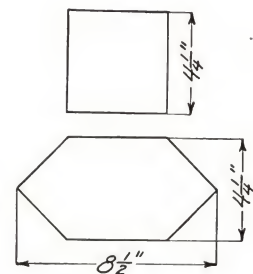
These shapes, in colors and textures originally manufactured for individual work of certain architects from their own designs, are now produced in quantities allowing their more general use. They are moderately priced.



Provence



Valencia



Renaissance

PIECES PER SQUARE FOOT

Based on $\frac{1}{8}$ " mortar joint.

Provence, 3.86

Valencia, 4.28

*Renaissance, squares, 1.88

*Renaissance, hexagons, 3.76

*Based on design showing square surrounded by hexagons.



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